# Appendix N

USACE Waterway Sign Standards

The Corps sign system has been designed using a selected group of common graphic elements and visual standards. These graphic elements include: the Corps Signature for agency identification, color standards for each type of sign, three weights of the Haas Helvetica typeface for the lettering on sign faces, specifications for letter- and word-spacing, the visual relationship of sign legend to sign panel size, recommended viewing distances for each size of legend typography (page 2-6), and sign placement guidelines (page 2-8 to 2-9).

These standards become the graphic building blocks around which the signs are designed. They have been adopted because they provide a functional base for the graphic format of each sign. These design standards also become one of the visual threads common to the design of each sign in the system.

This section defines the common graphic elements and visual standards and describes how they are to be used. These standards incorporate the principles contained in the Corps Graphic Standards Manual (EP 310-1-6). Each standard, however, has been adapted for application to signage.

Contact the National Sign Program Manager for advice and assistance concerning specialized or unique applications of these Corps design standards as they are applied to signs.

## Signature

The Corps Signature is the key graphic element used to identify the Corps to the public. The Signature consists of the Mark and the Corps name set in Helvetica Medium typeface. Both elements are placed flush left.

In applications to signage, the Signature is to be used only on signs where Corps identification is important and integral to the message being communicated. This use is limited to: Standard Identification, Approach Roadway Directional, Boundary (ownership), Construction Project Identification, and Corps Participation Credit signs. Each of these examples is shown in its respective section of this manual.

The two basic forms of the Signature are shown below. The positive version (top) is used on signs with a white or light tone background. The reverse version is used on signs where the Signature is placed on a dark background.

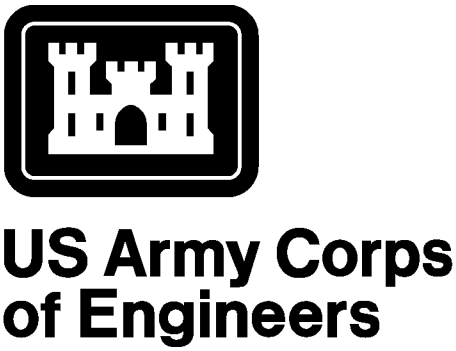
Refer to the *Graphic Standards Manual* (EP 310-1-6) for a complete description of the Mark and Signature. Note the Signature registration symbol ® is not to be used on signs.

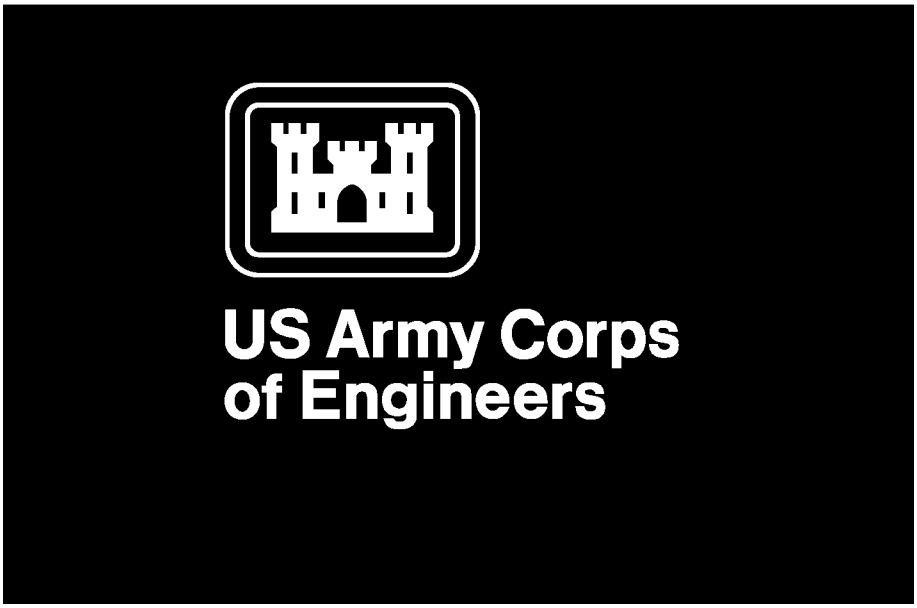
The form of the Mark is derived from the traditional Castle symbol used by the Corps since its inception.

The Mark has been redesigned for greater strength and adaptability, both visually and for reproduction purposes. In its new form, the Mark is a simplified contemporary rendering of the traditional symbol.

Do not place the Corps Mark or Signature on Project Roadway Directional, recreation area, informational, safety, or waterway guide signs. Indiscriminate use of the Signature only dilutes the primary communicative intent of the sign on which it is placed.

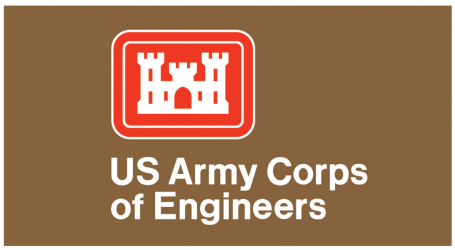
No district, division or other field-operating activity names are to be added to the basic Corps Signature when used on signs (other than sign CID-01 on page 16-2)



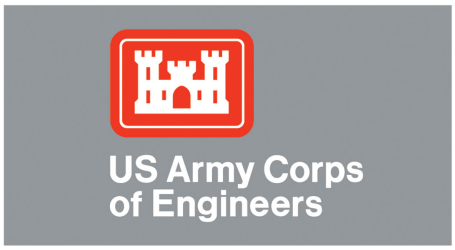



The illustrations below show the various color configurations possible when using the Corps Signature on signs. Note that there are fewer possible ways to render the Signature on a sign panel than are specified for print applications (see *Graphic Standards Manual*, pages 1-5).

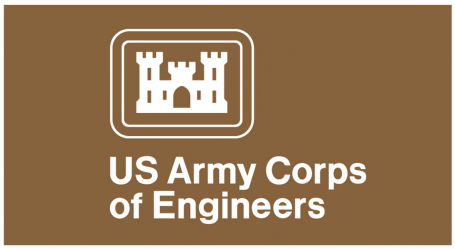
a) The most prominent use of the Signature will be on identification signs. For Standard Identification, post and panel signs, the reverse Signature is used; the Mark is Communication Red, the Signature type is white.



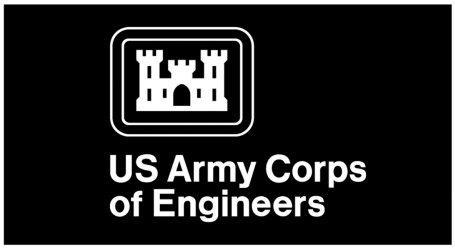

b) For large-scale Standard Identification signs of individual fabricated letters, the positive version is used; the Mark is Communication Red and the Signature typography is white (see page 5-7).



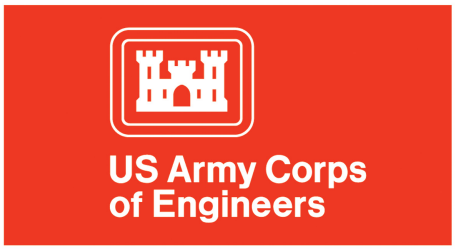

c) The Corps Participation Credit sign uses an all white reverse Signature on a Corps Brown background.



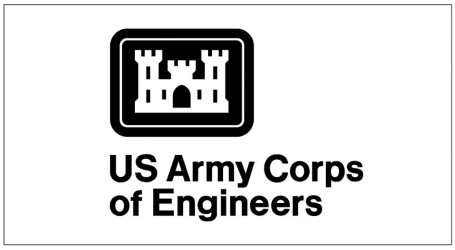

d) The header panels on Building Office Directories use a reverse Signature in white on Dark Grey.




e) Construction Project Identification signs use an all white reverse Signature on a Communication Red background.




f) Boundary signs use the positive Signature in black on a white background.



## Color Standards

Within the Corps sign system there are five standard color palettes. Three have been developed by the Corps and include: 1) Recreation Area signs, 2) Lock, Dam and Waterway signs, and 3) Office Interior signs. Two color groups have been adopted from existing standards: 1) Traffic signs (MUTCD) and 2) Workplace Safety signs (ANSI). Each of these is illustrated on the following pages with descriptions for their use. The two-character color code is in parentheses immediately after the color. Additional color application instructions are included in each respective section.

Colors must conform to the standards presented on the following pages when preparing signs.

For many of the colors shown on the next five pages, a corresponding Federal Standard Color number is listed. These numbers refer to color samples contained in a fan deck titled *Federal Standard 595B Colors*. The fan deck is published by the General Services Administration, order number 7690-01-162-2210.

Shown below are the colors for use on Corps identification, directional, and recreation area signs.

Corps Brown (BR): Background for identification, directional, recreation, and symbol signs. The closest Federal Standard Color is 20095.

White (WH): Legend for identification, directional, and recreation signs. Background for boundary signs. The closest Federal Standard Color is 27925, but the match with the 595B fan deck is not exact.

Communication Red (CR): Corps Mark (Castle) on identification signs. The closest Federal Standard Color is 11350, but the match with the 595B fan deck is not exact. The Graphics Standards Manual (EP 310-1-6) specifies Communication Red shall match Pantone Red 032.

Black (BK): Legend and Signature for boundary signs. The closest Federal Standard Color is 17038.

## Traffic Sign Color Standards

The colors shown below are adopted from the *Manual on Uniform Traffic Control Devices* (MUTCD), Section 2A-11, for use on signs within the right-of-way of all classes of public highways. Adjacent to the color display is a description of the sign types on which it is used. Refer to Section 9 for a description of the standard type of traffic signs used on Corps projects.

Red (RD): Background for Danger Signs (Stop, Do Not Enter, Wrong Way, Yield, etc.). Circle and Slash on Prohibition and No Parking Signs. The closest Federal Standard Color is 11310, but the match with the 595B fan deck is not exact.

Yellow (YL): Background for Warning/road hazard signs. The closest Federal Standard Color is 13637.

Orange (OR): Background for construction and maintenance Warning signs. The closest Federal Standard Color is 12473.

Green (GR): Background for guidance and directional signs. Circle around “P” of Parking sign. The closest Federal Standard Color is 14120, but the match with the 595B fan deck is not exact.

Safety White (WH): Legend for Danger, guidance, and information signs. Background for regulatory signs. The closest Federal Standard Color is 27925, but the match with the 595B fan deck is not exact.

Safety Black (BK): Legend for Warning and Regulatory signs. The closest Federal Standard Color is 17038.

The colors shown below are used on all safety signs as described in Section 11 of this manual.

Safety Red (SR): Federal Standard Color 11310, but the match with the 595B fan deck is not exact. Danger; warning of an immediate hazard.

Safety Yellow (SY): Federal Standard Color 13591, but the match with the 595B fan deck is not exact. Caution; warning of potential hazard.

Safety Green (SG): Federal Standard Color 14109, but the match with the 595B fan deck is not exact. Notice; for safety.

Safety Blue (SB): Federal Standard Color 15092. Information; general.

Black (SK): Federal Standard Color 17038. Directional and all descriptive legends.

White (SW): Federal Standard Color 27875. All sign backgrounds, except for Caution.

## Lock, Dam and Waterway Safety and Information Sign Color Standards

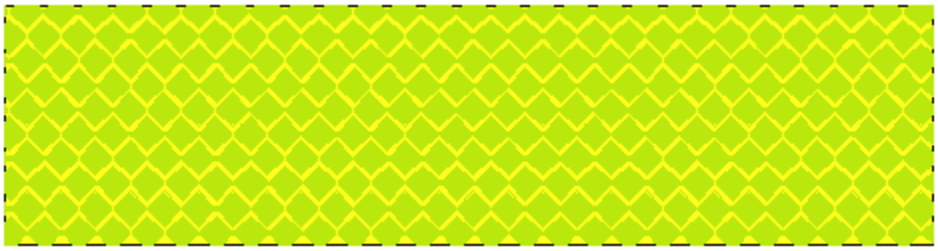
This color group has been developed for all waterway safety and information signs placed around locks and dams, on jetties and breakwaters, and to mark orientation points on lakes. Specifications and illustrations for their use are shown in Section 14 of this manual.

Color shall conform to the chromaticity coordinates as specified by the Corps. The material to be used for the colors below (other than black) is Diamond Grade sheeting. Color reference numbers are available from the National Sign Program Manager. Material specifications are provided on page B-13c-d. Recommended material product numbers are provided in Appendix B.

Lock, dam and waterway signs are used in conjunction with the *Aids to Navigation Marking System* (U.S. Coast Guard).

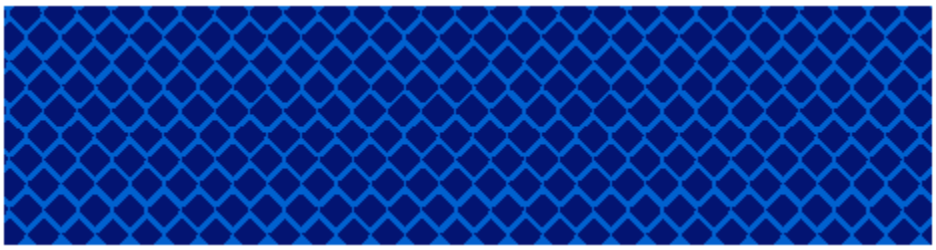
Red (RD): Background for Danger and Restricted signs; denoting an immediate hazard, and identification of restricted areas.

Lemon Yellow (LY): Background for Warning and Caution signs; warning of potential hazards.



Medium Blue (MB): Legend for Lock information/instruction signs; identifies arrival point, locking procedures, and general lock use information.

Alternate figure and field color (with white) for Lake Mile Markers and Lake Symbol Guide signs.



White (WH): Background for Lock Information Instruction signs.

Legend for Danger and Restricted signs.



Black (BK): Legend for Warning and Caution signs.

Office Interior signs for Corps buildings use the sign system described in Section 18. Shown below are the standard colors for use in this system. Only one of the standard accent colors (OD, OL, OG or WG) would be selected for a given office area. Color selected should be compatible with the existing office color scheme.

All sign legends are white (WH) and are identified using color number (01).

Office Dark Grey (DG): Background and frame color for identification and information plaques and directories (color number 44).

Office Red (OD): Background and frame color for ceiling-mounted assemblies (color number 24).

Office Blue (OL): Background and frame color for ceiling-mounted assemblies (color number 13).

Office Green (OG): Background and frame color for ceiling-mounted assemblies (color number 27).

Communication Red (CR): Background for safety-related plaques (color number 032). Panel frame to be Office Dark Grey.

Office Warm Grey (WG): Background and frame color for ceiling-mounted assemblies (color number 03).

## Typography for Sign Legends

Three different weights of the Haas Helvetica typeface have been adopted as the standard letter-style to be used on all Corps signs. These include Helvetica Bold, Helvetica Medium, and Helvetica Regular. These alphabets were selected because they are highly legible, contemporary in character, and readily available to manufacturers preparing signs for the Corps.

Shown below is a full upper/lower case display for each weight of the Helvetica letter-style. The comparative diagram on the following page illustrates the designated applications of each different weight.

Do not substitute any other typestyle for use on Corps signs.

Helvetica Bold: The wide stroke width of this letter-style creates a distinctive looking sign with simplicity. The bold letter-forms are ideally suited for signs with short legends. This typeface is used for the primary and secondary legends in identification, recreation area, industrial safety and parking signs.

**ABCDEFGHIJKLMNOPQ**
**RSTUVWXYZabcdefghij**
**klmnopqrstuvwxyz**
**1234567890($?!&-—“”.,;:)**

Helvetica Medium: This medium weight letter-style is used for all roadway and recreation area directional sign legends. This type is ideally suited for signs viewed from a moving vehicle. Its 5:1 letter height to stroke width ratio and large, open, lower case letters make it a very legible typeface. The Helvetica Medium typestyle should not be used on signs where the Helvetica Regular or Helvetica Bold typefaces are used.

**ABCDEFGHIJKLMNOPQ**
**RSTUVWXYZabcdefghijk**
**lmnopqrstuvwxyz**
**1234567890($?!&-—“”.,;:)**

Helvetica Regular: This is a thin stroke letter-style used for selected secondary legends on signs with Helvetica Bold primary legends, such as interpretative signs, and boundary signs. Helvetica Regular is also the typeface used for all interior signs.

ABCDEFGHIJKLMNOPQR
STUVWXYZabcdefghijklm
nopqrstuvwxyz
1234567890($?!&-—“”.,;:)

Designed in 1957 by Edourd Hoffman and Max Miedinger, the Helvetica family of type is registered and copyrighted by the Haas type foundry in Switzerland. Use only versions of this typeface family that have been prepared from Haas originals and licensed for use by Haas on the typesetting method used. Many unauthorized versions exist. Some differ only minutely from the authorized versions. In others, the letter-forms are distorted enough to cause a significant difference in the length of words and, consequently, in panel length. In addition, many versions are not as legible, nor visually pleasing as the correct one.

The examples below illustrate how the three different weights of the Helvetica typeface are used on the various types of signs in the Corps sign program. Although each sign type has been designed for a specific purpose, the shared typographic system gives a cohesive look to these many different types of signs.

The basic sizes of these typefaces (capital letter height) have been predetermined for each type of sign depending on the distance at which they will be viewed (see Viewing Distance Guide, page 2-6).

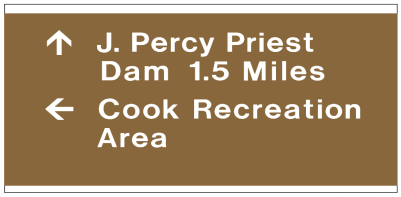
For optimum legibility, a spacing guide has been developed for each type weight (see Appendix D).

Helvetica Bold is used for all legends on Standard and Secondary Identification signs.

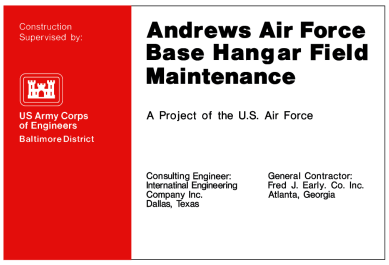
Helvetica Bold is used for all legends on recreation signs and as the support legends for Prohibition Symbol and Area Regulation signs.

Helvetica Bold is used for all legends on Workplace Safety signs and for support legends on Parking/No Parking signs.

Helvetica Medium is used for all directional and water-viewed signs.




Helvetica Regular is used with Helvetica Bold on Construction Project Identification signs and Property Markers.



## Letter-spacing of Typography

Proper letter spacing is critical to the legibility of a sign. Individual letters spaced too closely will cause them to run together, making it difficult to read the word. If the space between letters is too great, it is difficult to distinguish words. For this reason, letter-spacing standards have been established for all Corps signs. A list of typesetting systems that conform to Corps standards is in Appendix D.

In cases where typesetting systems that meet the Corps standards are not available, legends can be prepared using the manual letter-spacing guide described in Appendix D. This guide, while very time-consuming to use, is extremely accurate.

For reference purposes, a display of commonly used words is provided in Appendix D (pages D-18 through D-34) These words can be used to prepare legends or to verify the type and letter spacing provided by a fabricator. Note that the letter-spacing standards for identification, directional and recreation signs use one standard, while safety signs viewed from the water use a more open version to increase legibility.

For more information on letter spacing, consult your district Sign Program Manager.

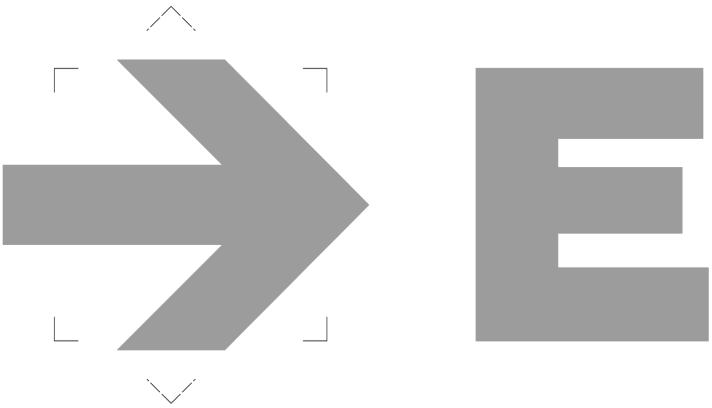
The arrows shown below are for use on Corps signs. Each arrow has been designed to be legible and, at the same time, compatible with its respective typeface.

Arrows may be placed in the directions shown. Position straight-up and left-directed arrows to the left of the legend.

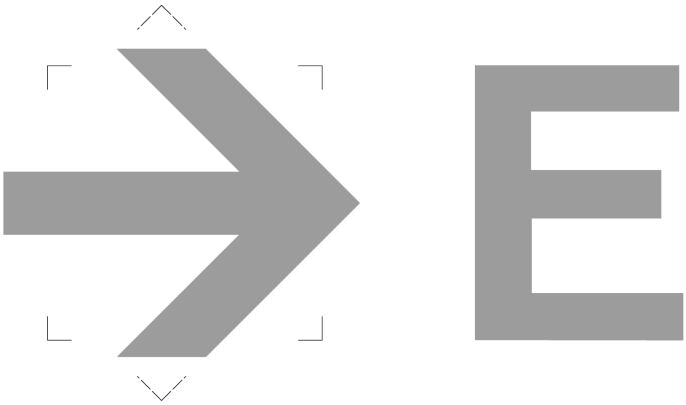
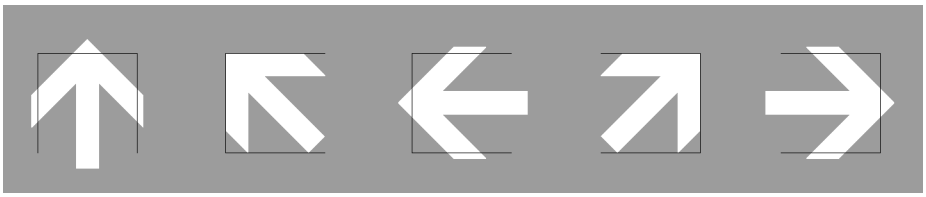
Place right-directed arrows to the right of the legend.

On signs with numerous destinations, a single arrow may be used for a group of destinations with a common direction. Place the arrow alongside the top destination in the group, either left or right of the legend as specified above.

Helvetica Bold Arrow



Helvetica Medium Arrow



Panel illustrates arrow alignment for the five different directions in which arrows may be placed on signs. Reading from left to right, the arrows show the priority of placement on a sign (see page 6-4).